## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization International Bureau



# 28 SEP 2004

#### (43) International Publication Date 9 October 2003 (09.10.2003)

PCT

## (10) International Publication Number WO 03/083777 A2

(51) International Patent Classification7:

G06T 7/00

(21) International Application Number:

PCT/IB03/01183

(22) International Filing Date:

1 April 2003 (01.04.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 102 14 763.9

3 April 2002 (03.04.2002)

(71) Applicant (for DE only): PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH [DE/DE]; Steindamm 94, 20099 Hamburg (DE).

(71) Applicant (for AE, AG, AL, AM, AT, AU, AZ, BA, BB, BE, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CY, CZ, DK, DM, DZ, EC, EE, ES, FI, FR, GB, GD, GE, GH, GM, GR, HR, HU, ID, IE, IL, IN, IS, IT, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MC, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SZ, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW only): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MOLLUS, Sabine [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE). STUKE, Ingo [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE). ECK, Kai [AT/DE]; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE). AACH, Til [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE).

(74) Agent: MEYER, Michael; Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF DETERMINING AN IMAGE FROM AN IMAGE SEQUENCE

(57) Abstract: The invention relates to a method of determining a corresponding image of a moving object for a reference image from an image sequence which represents the motion as a sequence of states of motion. To this end, two motion signals, representing the development of the relevant motions, are examined for similarities. Using the similarity function thus obtained, that image in the image sequence can be determined which represents at least approximately the state of motion of the object which is represented in the reference image. Furthermore, the invention relates to a system which is suitable for carrying out the method as well as to a computer program and a computer program product enabling a data processing unit to carry out the method.